

DOCKET NO. 99-B-186 (STMI01-99186)
SERIAL NO. 09/591,621
PATENT

REMARKS

Claims 1-29 are pending in this application.

Claims 1, 7-8, 14, 22 and 28 have been amended herein.

Reconsideration of the claims is respectfully requested.

35 U.S.C. § 102 (Anticipation)

Claim 8-28 were rejected under 35 U.S.C. § 102(b) as being anticipated by R. Giogi et al, “An Educational Environment for Program Behavior Analysis and Cache Memory Design,” 1997 *Frontiers in Education Conference* (IEEE 1997), pages 1243-48 (IEEE Document No. 0-7803-4086-8) (“*Giorgi*”). This rejection is respectfully traversed.

A claim is anticipated only if each and every element is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. MPEP § 2131 at p. 2100-67 (8th ed. rev. 6 September 2007).

Amended independent claims 8 and 22 each recite that the at least one memory configuration is determined using the memory usage statistical data collected during simulated execution of the program to be executed by the embedded processing system, a memory model and one or more design criteria associated with the embedded processing system. Such a feature is not found in the cited reference. *Giorgi* makes no mention of using a memory model to determine the system configuration.

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Amended independent claims 8 and 22 each also recite that the memory model includes, for each of a plurality of memory types, one or more characteristics selected from write power, refresh power, read power, area per bit, area efficiency, write speed, read speed, erase capability and block size. Support for this limitation is found in Tables 1 and 2 and the accompanying description at page 15, line 9 through page 16, line 8 of the specification as filed. Such a feature is not found in the cited reference.

Amended independent claims 8 and 22 each further recite that the one or more design criteria are selected from memory type usage constraints, memory type size constraints, memory power consumption objectives, and memory speed objectives. Memory type usage constraints ("minimize SRAM usage, maximize ROM usage"), memory type size constraints ("a maximum of N kilobits of SRAM"), memory power consumption objectives ("minimize power consumption" or "a maximum of R watts of power consumption") and memory speed objectives ("maximum write operation access speed") are described at page 14, line 22 through page 15, line 8 of the specification as filed. Such a feature is not found in the cited reference. *Giorgi* describes only the student specifying memory type and respective size (e.g., 1 MB DRAM, 128 KB PROM) for the system configuration.

Therefore, the rejection of claims 8-28 under 35 U.S.C. § 102 has been overcome.

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35 U.S.C. § 103 (Obviousness)

Claims 1-7 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Giorgi*. This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142, p. 2100-127 (8th ed. rev. 6 September 2007). Absent such a *prima facie* case, the applicant is under no obligation to produce evidence of nonobviousness. *Id.*

To establish a *prima facie* case of obviousness, three basic criteria must be met: First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.*

Amended independent claim 1 includes the same features discussed above in connection with amended claims 8 and 22. As noted above, such features are not found in the cited reference.

Therefore, the rejection of claims 1-7 and 29 under 35 U.S.C. § 103 has been overcome.

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If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at dvenglarik@munckbutrus.com.

The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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